

series of wet cleaning steps while that wafer is mounted in a fixed position in the internal cavity of a flattened quartz glass receptacle. --

R E M A R K S

No fee is required for the present amendment. The number of claims remains the same as before. Claims 19 and 20 have been rewritten, and dependent claim 23 has been cancelled and replaced by new dependent claim 32. Independent claim 29 has been cancelled and replaced by new claim 33.

Claims 19 and 20 have been rewritten with minor changes to define the invention more clearly, and new dependent claim 32 has been added to round out the protection to which applicant is believed to be entitled. The revised claims should be entered as placing the case in better condition for appeal or possible allowance. It should be noted that language added to claim 20 corresponds to that used in original claim 19, that the 10-volt limitation of new claim 32 corresponds to that of original claims 20 and 28, and that the language of new claim 32 corresponds closely to that of original claim 28.

The Examiner indicated on page 5 of the final Office action that claims 9-13 are allowed and that claim 14 is objected to as being dependent upon a rejected base claim but would be allowable if rewritten in acceptable independent form.

Claim 14 has been rewritten as new independent claim 33 by combining original claims 1, 3 and 14. The defined combination uses language corresponding to that used in the original

claims, is the same as the combination defined in claim 14, clearly distinguishes from the prior art in the same way, and obviously should be allowable.

For the reasons set forth in the remarks accompanying the last amendment dated September 21, 2001, the rejections of the claims in this case under 35 USC 102 and 103 are not well founded and should be reconsidered and/or withdrawn. It should be clear that claims 1, 2, 4, 8, 18, 21, 26 and 28 relating to the wet processing of wafers are not anticipated by the patent to Flitsch et al. There is no teaching in the prior art that would lead anyone to modify the Flitsch process along lines shown or described in the Japanese Kishii reference or to reduce the applied voltage to 3 volts as the Examiner seems to suggest.

Entry of the present amendment and reconsideration of the final rejection are requested. An early action would be greatly appreciated.

Respectfully submitted,



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Version with Markings to Show Changes Made

-- 19. (Amended) A process according to claim 18 wherein the front face of the process wafer is subjected to wet CMP polishing with colloidal silica or alumina particles having an average particle size of from 0.01 to 0.03 microns and is thereafter subjected to chemical cleaning and DI rinsing operations while said front face is negatively charged to a voltage sufficient to cause [efficient or] substantially complete removal of sub 0.05-micron killer [contaminant] particles bonded to the wafer surface.

20. (Amended) A process according to claim 1 for fabrication of microchips having a minimum line width or circuit image size less than 0.15 microns wherein the front [fron] face of each wafer is subjected to the wet CMP polishing with colloidal silica or alumina particles and is thereafter subjected to a wet cleaning operation for 0.5 to 5 minutes while said front face is negatively charged to a [substantial] limited voltage of [such as] 10 to 40 volts or more sufficient to [remove] cause substantially complete removal of [colloidal or] sub 0.05-micron [contaminant] killer particles, the voltage and rate of [large] charge of the wafer surface being applied or controlled during said wet cleaning operation in such manner as to minimize or limit damage or alteration of the delicate microcircuitry. --